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Report on a trial challenge inspection

In August 1989 the Federal Republic of Germany conducted a national trial challenge inspection at an ammunition depot of the Air Force. The trial inspection showed that, through a combination of expert assessment of secondary indicators and random on-site checks, it is possible to dispel with a fairly high degree of certainty the suspicion that chemical weapons are produced or stockpiled at an ammunition depot, without sensitive information having to be disclosed.

1. Aims

The trial insepection was intended above all to clarify questions concerning

- the input needed to reveal violations of the convention,
- proof of compliance with the convention, without disclosing sensitive information.

2. Facility inspected

The trial inspection was carried out at an ammunition depot of the Air Force covering an area of approximately 150 hectares. The depot comprises a storage area with about 35 ammunition stores and ammunition service buildings, an administrative area with offices and accommodation, and a technical area. The depot has several gates linking it to road and railway systems.

3. Inspection team and in-country escort

The inspection team consisted of five persons:

- two chemical weapons specialists responsible for the actual inspection activities;
- one expert in depot organization;

- two safety experts responsible for checking the safety measures of the unit inspected.

One officer was acting as an observer of the challenging State. There was an official in-country escort.

4. Preparations

The trial inspection was conducted on the basis of the relevant provisions of the rolling text of the convention (CD/881 of 3 February 1989).

The facility was informed a few days in advance of the envisaged inspection.

5. The inspection proper

The inspection team, the escort and the observer were welcomed at the main entrance by depot officers and accompanied to a briefing room. The depot commander gave a general description of the facility in his initial briefing.

On the basis of a layout plan handed out to the inspectors and the escort, the main items of the depot were explained, with a distinction being made between the administrative and ammunition areas. After this outline of the facility, the inspectors and escort were familiarized with the safety regulations for the visit to the ammunition area.

The depot commander's briefing was followed by intensive questioning by the inspectors. In the case of questions not connected with the inspection assignment, e.g. ones concerning manpower, guards and the like, the in-country escort refused to answer on the grounds that the questions were irrelevant to the purposes of the inspection.

Even in this initial phase the reactions and answers to the questions asked by the inspectors, partly in rapid succession, can serve as first indications of whether something is being concealed in connection with the official challenge and whether the staff of the facility are reasonably willing to lend their support.

After arriving at the inspection site, the leader of the inspection team asked the depot commander to arrange for all entrances and exits of the depot to be closed, except for the main entrance. (In the case of a genuine inspection, considerable time and personnel would be needed, especially at large facilities, for closing the entrances/exits and monitoring their closure.)

Subsequently, the briefing room was placed at the disposal of the inspectors as a working room.

After the inspectors had completed their deliberations on the procedure for the inspection, the inspectors and escort made a joint tour of the facility in a bus. The inspectors simultaneously used this trip to enter the items to be inspected in the layout plan handed out to them. The inspectors paid particular attention to such details as:

- clothing and equipment of the staff;
- specific building features;
- treatment of liquid waste;
- stunted growth of vegetation.

This familiarization trip, which gave the inspectors an impression of the overall facility, was followed by a tour on foot of the administrative area, with random checks being made. For this purpose the inspectors had selected certain key items, such as the:

- medical station;
- workshops;
- stores and storage sites;
- scrapyard.

Even at this stage the inspectors were able, on account of the secondary indicators, to make an initial, unexpectedly clear assessment of whether chemical warfare agents are stockpiled or produced at the facility. It is therefore highly important to include a depot's administrative area in an inspection.

In the ammunition area, the inspectors specifically examined the repair unit, the incoming/outgoing goods unit and two ammunition stores. For this purpose the inspectors formed two groups, each of which was escorted. At this inspection stage, too, the inspectors paid attention to such secondary indicators as type of bunker, signposting, decontamination installations and the like.

Only a small part of the overall inspection was spent examining the stockpiled ammunition. Some of the ammunition was contained in sealed shipping or storage containers. This meant that it would not have been possible to examine them without damaging the seals. However, on the basis of

the features of the storage site and the containers and with the aid of simple sampling the inspectors would be able to rule out with a high degree of probability any chemical warfare agents being stored in the containers.

In a final inspection phase, ammunition experts of the inspection team explained the use of measuring and testing equipment for detecting chemical warfare agents. Using the mobile equipment it is possible, on the basis of modern technology (e.g. X-ray measurements, detection of any liquid content by a stethoscope) and without opening or chemical analysis, to distinguish on site in most cases between warfare agents with a chemical charge and ones with solely an explosive charge.

Within a fairly brief space of time it should be possible, with simple analyses using mobile equipment, to ascertain with sufficient certainty whether chemical weapons were produced or stockpiled in the ammunition depot on the day of the inspection or a while before it.

The inspection was terminated after about six hours once it became evident that no additional significant information could be obtained.

6. Conclusions

6.1 General

Summing up the experiences gained with this inspection, it can be stated that, with the aid of secondary indicators and relatively simple on-site checks, the suspicion that chemical weapons are being produced or stockpiled at an ammunition depot can be dispelled with sufficient certainty. A challenge inspection can be conducted in this manner, without having to rely on sensitive information. Sensitive areas can be protected, without impairing the aims or proceedings of an inspection.

The inspection team can obtain important information from the briefing, the questioning (including questions concerning such operating data as water and energy consumption), the inspection of the administrative area, the absence of rescue facilities and the attitude of the staff towards personal safety. The assessment of such secondary indicators thus acquires special importance, which had generally not been presumed. Hence the administrative area should also be included in an inspection.

6.2 Proposals

Apart from the aforementioned experiences, the following proposals for the conduct of chemical weapons challenge inspections can be derived from the trial inspection:

- specialized staff at the facility inspected must make available all operating data, e.g. on water supply and disposal, energy consumption;
- skilled staff at the facility inspected must be accessible at all times during the inspection;
- it must be ensured that in cases of doubt or reasonable suspicion access is granted to areas regarded as sensitive by the inspected party. In such instances, the need for confidentiality can be fully met by appropriate precautions, such as removing or covering accessible papers, illustrations or maps, switching off computers, protecting classified components;
- layout plans of the items involved are needed for conducting the inspection;
- the inspected party's briefing on the facility should be of limited duration and not be regarded as part of the inspection period. Questioning by the inspection team should, however, be included in the inspection period;
- the tasks and rights of the challenging State's observer must be precisely defined, especially to what extent access and the right to ask questions should be granted to him;
- the inspection team should have support staff of its own. Such staff are needed, inter alia, for closing (sealing) the exits and controlling the vehicles leaving or entering the main entrance kept open;
- the practical conduct of an inspection with mobile measuring and testing equipment and with the analysis of samples needs to be tried out in order to obtain an indication of the time and effort required.